Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PETER J. WILK

Appeal No. 2002-1020
Application 09/348,798

ON BRIEF

Before STAAB, MCQUADE, and BAHR, Administrative Patent Judges.

MCQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Peter J. Wilk appeals from the final rejection of claims 10 through 18, all of the claims pending in the application.

THE INVENTION

The invention relates to "a method . . . for assisting a golfer in tracking a golf ball" (specification, page 1).

Representative claim 10 reads as follows:

10. A method for assisting a golf player in tracking golf shots, comprising:
operating a video camera at an initial location along a golf course fairway to generate a first video signal encoding a first image of a plurality of substantially stationary objects along said fairway and of a target golf ball moving relative to said stationary objects;

providing a computer and a display, said computer being operatively connected to said camera for receiving said video signal therefrom, said computer being connected to said display;

operating said computer to process said video signal to detect said target golf ball;

further operating said computer to automatically determine a path of motion of said target golf ball and an end point of said path of motion;

additionally operating said computer to modify at least a portion of said video signal to superimpose on a view of said stationary objects a curvilinear indication of the determined path of motion of said target golf ball;

also operating said computer to display on said display said view with said indication of said determined path of motion;

after the display of said view with said indication of said determined path of motion, moving said video camera along said fairway from said initial location toward said end point;

between said initial location and said end point, operating said video camera to generate a second video signal encoding a second image of only some of said substantially stationary objects along said fairway;

supplementally operating said computer to modify at least a portion of said second video signal from said camera to superimpose on said second image a downstream or end segment of said curvilinear indication of said determined path of motion, thereby enabling a user to visualize said path of motion on said display as the user approaches the target golf ball at its location along said fairway.

THE PRIOR ART

The references relied on by the examiner to support the final rejection are:

Nauck	5,413,345	May 9, 1995
Cooper et al. (Cooper)	5,938,545	Aug. 17, 1999

THE REJECTION

Claims 10 through 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nauck in view of Cooper.

Attention is directed to the appellant's main and reply briefs (Paper Nos. 9 and 11) and to the examiner's answer (Paper No. 10) for the respective positions of the appellant and the examiner with regard to the merits of this rejection.

DISCUSSION

Nauck discloses a system for use on a driving range 10 to track, analyze and record the flight of golf balls hit from tee boxes 12-17 toward target greens A-K. The system essentially consists of an array of high speed video cameras 20-25 and 30-32 located to provide efficient coverage of the range. The video cameras embody image processors coupled to data microprocessors, data memory devices, video monitors, control terminals, and related hardware and software adapted to identify, track, display and record all or part of the path of a golf ball from the time it is struck, or shortly thereafter, to the time it reaches its final resting point (see column 2, lines 4 through 11). The information recorded can include shot height, distance, trajectory, impact location, final lay location and relationship of the impact and/or final lay location to a selected target.

Mapping of the ground topography in computer memory permits precise location of balls, ball impact points and targets.

As conceded by the examiner (see page 4 in the answer), Nauck's system does not respond to the last three steps set forth in claim 10, to wit:

> after the display of said view with said indication of said determined path of motion, moving said video camera along said fairway from said initial location toward said end point;
>
> between said initial location and said end point, operating said video camera to generate a second video signal encoding a second image of only some of said substantially stationary objects along said fairway;
>
> supplementally operating said computer to modify at least a portion of said second video signal from said camera to superimpose on said second image a downstream or end segment of said curvilinear indication of said determined path of motion, thereby enabling a user to visualize said path of motion on said display as the user approaches the target golf ball at its location along said fairway.

Cooper discloses a system for use on a golf course to estimate and display the probable resting location of a struck ball, thereby reducing the likelihood that the ball will be lost. The system, which is mounted on a golf cart, includes a pair of digital video cameras which track the ball immediately after it is struck, and a data processing system which calculates an estimated ball trajectory and a circular impact probability location for display on a monitor showing the golf course in an X-Y-Z coordinate system.

In proposing to combine Nauck and Cooper to reject claim 10, the examiner concludes that it would have been obvious "to mount the topography-based shot tracking system described by Nauck to a mobile cart, as suggested by Cooper. The resulting system would provide the benefits of shot tracking, analysis, and display in a mobile system that could be used during game play" (answer, page 4).

Even if this reference combination were made, however, it still would not account for the particular claim 10 method steps at issue. At best, the proposed modification of Nauck in view of Cooper would result in a method wherein Nauck's golf ball tracking, analyzing and recording steps are performed each time a ball is struck. There is nothing in the combined teachings of these references, however, which would have suggested the operation of Nauck's system between an "initial location" and an "end point" in the manner required by claim 10.

Thus, the collective disclosures of Nauck and Cooper do not support a conclusion that the differences between the subject matter recited in claim 10 and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.

Accordingly, we shall not sustain the standing 35 U.S.C. § 103(a) rejection of claim 10, and dependent claims 11 through 18, as being unpatentable over Nauck in view of Cooper.

SUMMARY

The decision of the examiner to reject claims 10 through 18 is reversed.

REVERSED

LAWRENCE J. STAAB Administrative Patent Judge	)	
	)	BOARD OF PATENT
	)	APPEALS AND
JOHN P. MCQUADE Administrative Patent Judge	)	INTERFERENCES
	)	
JENNIFER D. BAHR Administrative Patent Judge	)	

JPM/kis
COLEMAN, SUDOL, SAPONE, P.C.
714 COLORADO AVENUE
BRIDGEPORT, CT 06605-1601